Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application:

1. (Currently amended) A method of making block error rate measurements in a layered protocol communications system, comprising:

opening and maintaining an information block flow by sending repeated message blocks which are defined at a selected layer in the protocol stack below the topmost layer; [[and]]

monitoring ack/nack messages sent in response to the message blocks to determine whether the message blocks have been correctly transported; and

calculating said block error rate measurements based at least in part on the monitored ack/nack messages.

2. (Original) The method of claim 1, wherein the message blocks have a predetermined characteristic which causes the message blocks to be discarded upon processing at the selected protocol layer in a communications unit receiving the message blocks.

3. (Original) The method of claim 1, wherein the communications system is a general packet radio service (GPRS) and the selected protocol layer is a GPRS mobility management layer.

4. (Original) The method of claim 3, wherein the repeated message blocks are GMM_INFORMATION message blocks.

5. (Original) The method of claim 4, wherein the predetermined characteristic comprises absence from a message block of any information elements other than a message header.

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6. (Original) The method of claim 1, wherein the communications system is a general packet radio service (GPRS) and the selected protocol layer is a GPRS logical link control layer.

7. (Original) The method of claim 6, wherein the repeated message blocks are GRR_DATA_REQ message blocks.

8. (Original) The method of claim 7, wherein the predetermined characteristic comprises inclusion in a message block of an invalid frame check sequence.

9. (New) A method of making block error rate measurements in a layered protocol communications system, comprising:

constructing message blocks to conform to a message structure defined at a selected layer below a topmost layer in a protocol stack of the layered protocol communications system;

opening and maintaining an information block flow by sending repeated said message blocks through the system;

monitoring ack/nack messages sent in response to the message blocks to determine whether the message blocks have been correctly transported; and

measuring block error rate as a predetermined function of occurrence of monitored nack messages.

10. (New) The method of claim 9, wherein the message blocks are constructed to have a predetermined characteristic that causes the message blocks to be discarded upon processing at the selected protocol layer in a communications unit receiving the message blocks.

11. (New) The method of claim 9, wherein the communications system is a general packet radio service (GPRS) and the selected protocol layer is a GPRS mobility management layer.

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12. (New) The method of claim 11, wherein the repeated message blocks are GMM_INFORMATION message blocks.

13. (New) The method of claim 12, wherein the message blocks are constructed to have a predetermined characteristic that causes the message blocks to be discarded upon processing at the selected protocol layer in a communications unit receiving the message blocks, the predetermined characteristic comprising absence from a message block of any information elements other than a message header.

14. (New) The method of claim 9, wherein the communications system is a general packet radio service (GPRS) and the selected protocol layer is a GPRS logical link control layer.

15. (New) The method of claim 14, wherein the repeated message blocks are GRR_DATA_REQ message blocks.

16. (New) The method of claim 13, wherein the message blocks are constructed to have a predetermined characteristic that causes the message blocks to be discarded upon processing at the selected protocol layer in a communications unit receiving the message blocks, the predetermined characteristic comprising inclusion in a message block of an invalid frame check sequence.

17. (New) A method of making block error rate measurements in a general packet radio service (GPRS) layered protocol communications system, comprising:

constructing message blocks to conform to a message structure defined at a selected one of

(i) a GPRS mobility management layer and

(ii) a GPRS logical link control layer

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in a protocol stack of the GPRS layered protocol communications system, said message blocks being respectively one of

(i) GMM_INFORMATION message blocks defined in the mobility management layer and

(ii) GRR_DATA_REQ message blocks defined in the logical link control layer;

opening and maintaining an information block flow by sending repeated said message blocks through the system;

monitoring ack/nack messages sent in response to the message blocks to determine whether the message blocks have been correctly transported; and

measuring block error rate as a predetermined function of occurrence of monitored nack messages.

18. (New) The method of claim 17, wherein the message blocks are constructed to have a predetermined characteristic that causes the message blocks to be discarded upon processing at the selected protocol layer in a communications unit receiving the message blocks.

19. (New) The method of claim 18, wherein the predetermined characteristic comprises:

(i) absence from a message block of any information elements other than a message header in the case of GMM_INFORMATION message blocks, and

(ii) inclusion in a message block of an invalid frame check sequence in the case of GRR_DATA_REQ message blocks.

20. (New) Apparatus for making block error rate measurements in a layered protocol communications system, comprising:

a message block transmitter for constructing message blocks to conform to a message structure defined at a selected layer below a topmost layer in a protocol stack of the layered protocol communications system, and for opening

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and maintaining an information block flow by sending repeated said message blocks through the system; and

a monitor for monitoring ack/nack messages sent in response to the message blocks to determine whether the message blocks have been correctly transported, and for measuring block error rate as a predetermined function of occurrence of monitored nack messages.

21. (New) Apparatus for making block error rate measurements in a general packet radio service (GPRS) layered protocol communications system, comprising:

a message block transmitter for constructing message blocks to conform to a message structure defined at a selected one of

(i) a GPRS mobility management layer and

(ii) a GPRS logical link control layer

in a protocol stack of the GPRS layered protocol communications system, said message blocks being respectively one of

(i) GMM_INFORMATION message blocks defined in the mobility management layer and

(ii) GRR_DATA_REQ message blocks defined in the logical link control layer,

and for opening and maintaining an information block flow by sending repeated said message blocks through the system; and

a monitor for monitoring ack/nack messages sent in response to the message blocks to determine whether the message blocks have been correctly transported, and for measuring block error rate as a predetermined function of occurrence of monitored nack messages.

22. (New) A method of making block error rate measurements in a layered protocol communications system, comprising:

opening and maintaining an information block flow by sending message blocks which are defined at a selected layer in the protocol stack below the topmost layer, wherein at least some of the message blocks are intentionally

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constructed to be discarded following receipt and processing thereof to return an ack/nack message; and

monitoring ack/nack messages sent in response to receipt of the message blocks to determine whether the message blocks have been correctly transported.

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